



A blue whale, rolled onto its side, lunge feeding on krill off the Victorian coast. This is one of few known Southern Hemisphere blue whale feeding areas outside Antarctic waters.

Mysterious blues a rare southern sight

IT IS FAR too early to say whether endangered blue whale populations are also recovering in Australian waters, but there is new hope that this giant species has found a stronghold on at least one special part of the continent's southern coast.

Blue whales are the largest animals ever known, exceeding in size even the most immense dinosaur. Adults can exceed 30 metres in length and weigh 150 tonnes. One exceptional female killed in commercial whaling days is said to have weighed about 200 tonnes – the equivalent of seven or eight loaded semi-trailers.

An exploratory voyage by International Whaling Commission researchers in late 1995 reported blue whales in coastal waters off western Victoria.

Australian marine biologist Peter Gill was surprised because he was unaware of any previous scientific records of their presence there, so he followed up the report and learned that commercial fishers had been seeing the whales in the area for some time.

This was heartening news because grave fears are held for the survival of this endangered species in the Southern Hemisphere.

Whalers hunted them down mercilessly, reducing their population from an estimated original standing population of 225 000 to less than 1000 individuals. More than 360 000 individuals were taken.

Occasional sightings are made, but Gill says there's no firm evidence that their numbers have grown since whaling ceased. No one knows where they breed and their rarity and their ability to travel hundreds of kilometres in a day makes them difficult to study.

Gill decided to investigate the Victorian sightings further and has now spent two seasons carrying out field research in the area for his Deakin University doctoral studies, with support from Environment Australia, CSIRO Marine Research, the Victorian Government, the Australian Geographic Society and local people, including Portland commercial fishers.

He has now seen many blue whales – including adults, juveniles and a mother and calf on one occasion – in coastal waters over an area of about 100 nautical miles, from Warrnambool to beyond the South Australian border. Unique patterns of pale spots on their blue-grey flanks allow individuals to be identified.

While flying aerial surveys, watching from coastal clifftops and sailing on a yacht, he has seen up to 12 whales of various ages in a

single outing. Few other people – except the whalers – can have seen that many at once in Australian waters this century.

His investigations have also begun to shed intriguing light on when and why the whales are there.

CSIRO satellite images of sea-surface temperatures have revealed that unusual local circumstances seem to make the whales favour the area. For a period of about six months over summer and autumn, persistent south-easterly winds run almost parallel to the coast and push warm surface water away from it, which causes nutrient-rich cold water to upwell onto the shallow continental shelf.

In turn, those nutrients allow large swarms of small prawn-like krill to develop on the surface of the shelf waters, and the giant whales are clearly feeding on them. That adds extra significance to the discovery, since outside of Antarctic seas only a handful of blue-whale feeding grounds are known in the Southern Hemisphere.

The krill swarms at times may reach one kilometre in length and Gill has seen the whales plough through them with their huge mouths agape as they gulp in vast quantities of their tiny prey.

The great effort of doing so seems to generate excessive body heat for the whales: when they roll on their sides during feeding, the white undersides of their bellies and fins are flushed pink with blood as the whales dissipate their body heat.

Whales may remain in the area for about six months from December to June then probably move into warmer waters to breed, Gill says.

'This seems to be the only place in southern Australia where this sort of upwelling is consistent, so we seem to have unique set of circumstances here for the whales. It's very exciting and a phenomenal situation.'

He is concerned, however, that public interest will spark a new whale-watching enterprise. He says any such development must be approached with great caution and respect for the whales' needs. The area is already subject to heavy shipping traffic, commercial fishing operations and oil and gas exploration. He believes it will take much goodwill, co-operation and a concerted effort to find out more about the whales to ensure that their fragile return to Australian waters is not disturbed.